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SEARCH REQUEST FORM

Requester's Full Name: LALITHA NAGUBANDI Examiner #: 82043 Date: 03/21/06
Art Unit: 1621 Phone Number: 2-7996 Serial Number: 10/539,785
Location (Bldg/Room#): REM/5D20 (Mailbox #): REM/C18 Results Format Preferred (circle) PAPER DISK

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Process for producing 1-Acetoxy-3-Substituted phenyl propene compound
Inventors (please provide full names): Masashi Shirai, Yoshihiro Yoshida, Shinichiro Sadaike

Earliest Priority Date: December 18th 2003

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for-

- ① a process producing 1-acetoxy-3(substituted phenyl) propene compound represented by str I in claim 1
- ② Compound search for str VI
- ③ Compound search for str X & XI
- ④ Pl. concentrate on claims 5-10; for process search

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____ Other

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____ Questel/Orbit _____ Lexis/Nexis

____ Westlaw _____ WWW/Internet

____ In-house sequence systems

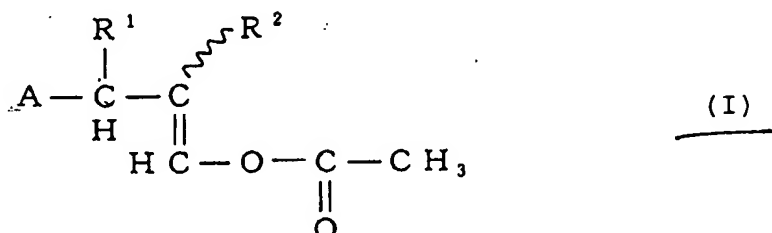
____ Commercial _____ Oligomer _____ Score/Length

____ Interference _____ SPDI _____ Encode/Transl

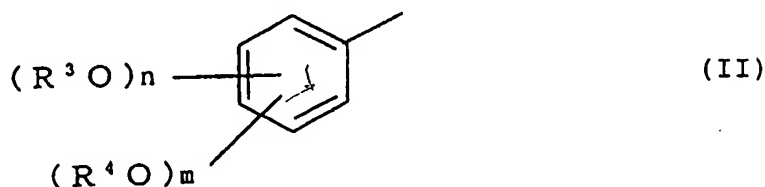
____ Other (specify)

CLAIMS

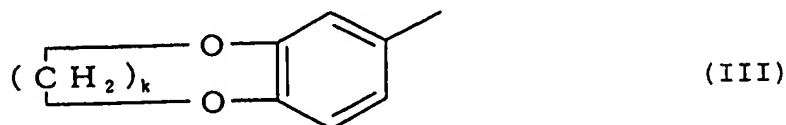
1. A process for producing a 1-acetoxy-3-(substituted phenyl)propene compound represented by the general formula (I):



in which formula (I), R^1 and R^2 , respectively and independently from each other, represent a member selected from the groups consisting of a hydrogen atom and alkyl groups having 1 to 10 carbon atoms, R^1 and R^2 may form, together with carbon atoms located in the 2- and 3-positions of the propene group, a cyclic group; and A represents a member selected from a group of substituted phenyl groups represented by the formulae (II) and (III):



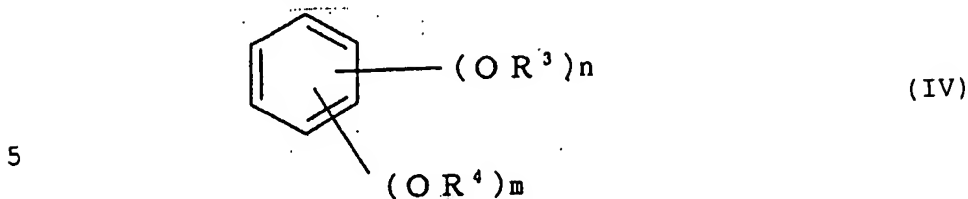
and



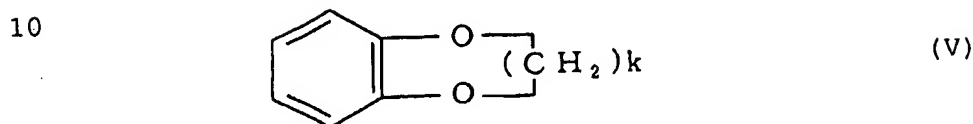
wherein R^3 and R^4 , respectively and independently from each other, represent an alkyl group having 1 to 4 carbon atoms, m represents an integer of 0 or 1 to 4, n represents an integer of 1 or 5 and k represents an integer of 1 or 2,

comprising reacting a benzene compound selected from

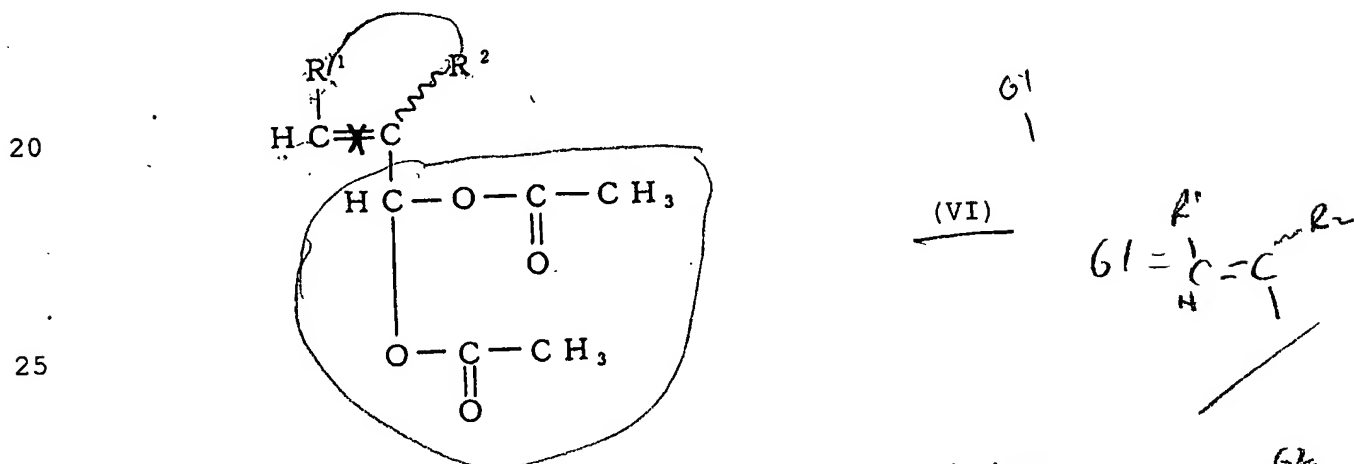
those represented by the general formulae (IV) and (V):



and



15 in which formula (IV) and (V), R^3 and R^4 and n , m and k are as defined above, with a 2-alkenylidene diacetate compound represented by the general formula (VI):



30 in which formula (VI), R^1 and R^2 are as defined above, in the presence of a catalyst comprising at least one compound selected from the group consisting of (a) halogenated boron compounds, (b) triflate compounds of Group 11 elements of the Periodic Table, (c) halogenated compounds of Group 12 elements of the Periodic Table, and (d) triflate compounds and

35 halogenated compounds of tin and lanthanoid elements of atomic numbers 58 and 66 to 71.

2. The process for producing a 1-acetoxy-3-

(substituted phenyl)propene compound as claimed in claim 1, wherein the benzene compounds represented by the formula (IV) is selected from the group consisting of anisole, veratrol, hydroquinone dimethylether, pyrogallol trimethylether and hydroxyhydroquinone trimethylether.

3. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the benzene compounds represented by the formula (V) is selected from the group consisting of 1,2-methylenedioxybenzene and 1,2-ethylenedioxybenzene.

4. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the alkenylidene diacetate is selected from the group consisting of 3,3-diacetoxy-2-methylpropene, 3,3-diacetoxy propene, 3,3-diacetoxy-1-methylpropene, 3,3-diacetoxy-2-ethyl propene, 3,3-diacetoxy-1-ethylpropene, and 3,3-diacetoxy-1-ethyl-2-methylpropene.

5. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the reaction is carried out in a molar ratio of the benzene compound to the alkenylidene diacetate compound of 1:1 to 50:1.

6. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the catalyst is present in an amount of 0.005 to 1 mole per mole of the alkenylidene diacetate compound.

7. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the halogenated boron compounds (a) usable for the catalyst are selected from boron fluorides, boron trifluoride-diethylether complexes, borontrifluoride-tetrahydrofuran complexes, boron trifluoride-acetic acid complex salt, boron trifluoride dihydrate, and boron trifluoride-n-buthylether complexes.

8. The process for producing a 1-acetoxy-3-

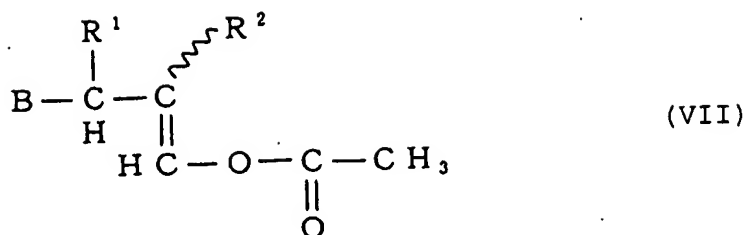
(substituted phenyl)propene compound as claimed in claim 1, wherein the triflate compounds (b) of Group 11 elements of the Periodic Table usable for the catalyst are selected from the group consisting of copper triflate and silver triflate.

5 9. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the halogenated compounds (c) of Group 12 elements usable for the catalyst are selected
10 from the group consisting of zinc fluoride, zinc chloride, zinc bromide, zinc iodide, cadmium fluoride, cadmium chloride, cadmium bromide, cadmium iodide, hydrogen fluoride, mercury chloride, mercury bromide, and mercury iodide.

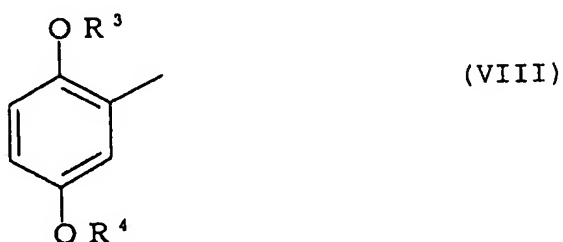
15 10. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 5, wherein the triflate and halogenated compounds (d) of tin and lanthanoid elements of atomic numbers 58 and 66 to 71 are selected from the group
20 consisting of triflates, fluorides, chloride, bromides, and iodide of tin, cerium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium.

25 11. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the reaction is carried out in an atmosphere consisting of a nonreactive gas to the above-mentioned compounds of the formulae (IV), (V) and (VI), the above-mentioned catalyst and the resultant reaction products.

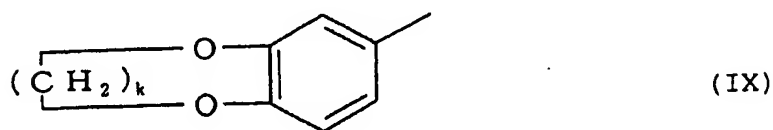
30 12. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the compounds of the formula (I) are selected from the compounds represented by the general formula (VII):



In which formula (VII), R^1 , R^2 are as defined above, B represents a member selected from a group of substituted phenyl groups represented by the formulae (VIII) and (IX):

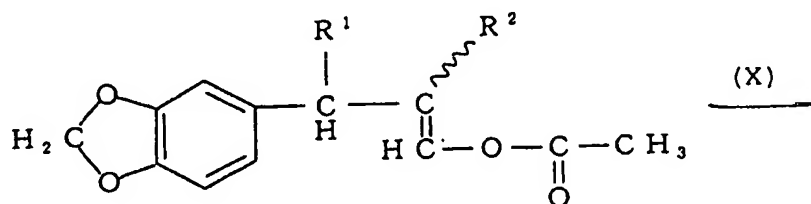


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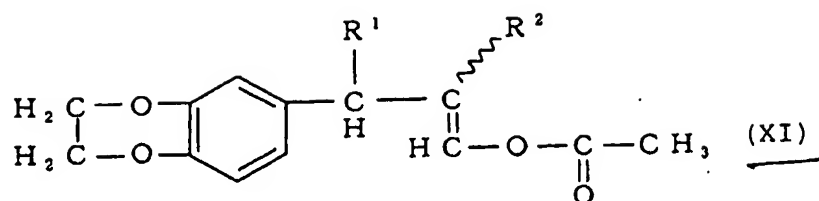


In which formulae (VIII) and (IX), R^3 and R^4 and k are as defined above.

13. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the compound of the formula (I) is selected from 1-acetoxy-3-(3,4-C1 to C2 alkylene dioxyphenyl)propenes represented by the formulae (X) and (XI):



and



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14. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 12, wherein in the formulae (X) and (XI), R^1 represents a hydrogen atom and R^2 represents a methyl group.

15. The process for producing a 1-acetoxy-3-(substituted phenyl)propene compound as claimed in claim 1, wherein the compound of the formula (I) is selected from the groups consisting of 1-acetoxy-2-methyl-3-(3,4-methylenedioxyphenyl)propene, 1-acetoxy-2-methyl-3-(3,4-ethylenedioxyphenyl)propene, 1-acetoxy-2-methyl-3-(4-methoxyphenyl)propene, 1-acetoxy-2-methyl-3-(2,5-dimethoxyphenyl)propene, and 1-acetoxy-2-methyl-3-(3,4-dimethoxyphenyl)propene.

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FAST SEARCH

US 20050143599 A1	US-PGPUB	20050630		Process for preparing monoesters	560/261
US 20020082446 A1	US-PGPUB	20020627		Process for esterification in a chromatographic reactor	
560/263					
US 20020062039 A1	US-PGPUB	20020523		Fluid bed vinyl acetate catalyst	560/261
US 20020028966 A1	US-PGPUB	20020307		Process for the preparation of fluid bed vinyl acetate catalyst	
560/261					
US 20020022741 A1	US-PGPUB	20020221		Metathesis syntheses of pheromones or their components	
560/234					
US 20010056201 A1	US-PGPUB	20011227		Process for the production of vinyl acetate	560/245
US 20010051690 A1	US-PGPUB	20011213		Polymers of 3-butene esters, their preparation and use	
525/328.9					
US 20010016666 A1	US-PGPUB	20010823		PROCESS FOR THE PRODUCTION OF ESTERS FROM	
ALCOHOLS USING ACETIC ACID AS ACETYLATED AGENT AND CLAYS AS CATALYSTS					560/231
US 6987200 B2	USPAT	20060117		Process for producing catalysts comprising nanosize metal	
particles on a porous support, in particular for the gas-phase oxidation of ethylene and acetic acid to give vinyl acetate					
560/261					
US 6982340 B2	USPAT	20060103	8	Process for producing an ester	554/142
US RE38864 E	USPAT	20051101	17	Process for making n-butyl esters from butadiene	
560/241					
US 6900347 B2	USPAT	20050531	25	Impurity inhibition in olefin metathesis reactions	
560/261					
US 6825149 B2	USPAT	20041130	12	Highly selective shell impregnated catalyst of improved space time	
yield for production of vinyl acetate		502/330			
US 6818792 B2	USPAT	20041116	6	Preparation of polymerizable compounds	560/218
US 6803182 B1	USPAT	20041012	12	Gallium complex composition, process for doping silver halide	
emulsion grains with gallium complex composition, and gallium-doped silver halide emulsion					430/604
US 6696596 B1	USPAT	20040224	7	Catalyst and method for producing vinyl acetate	
560/245					
US 6677495 B1	USPAT	20040113	10	Oligomer mixtures derived from cyclopentene; method for the	
production and use thereof		585/645			

US 6605739 B1	USPAT	20030812	10	Method for producing vinyl acetate monomer from ethane or ethylene oxidation
US 6602476 B2	USPAT	20030805	9	Apparatus and process for heat exchange with fluid beds
US 6540991 B2	USPAT	20030401	5	Stabilized active materials
US 6534434 B2	USPAT	20030318	26	Chiral imidazolidinone-based catalyst composition and reaction
US 6506930 B1	USPAT	20030114	7	Process for preparing alkyl (meth)acrylates
US 6472555 B2	USPAT	20021029	9	Process for the production of esters from alcohols using acetic acid
US 6420595 B1	USPAT	20020716	36	Process control for vinyl acetate manufacture
US 6420308 B1	USPAT	20020716	8	Highly selective shell impregnated catalyst of improved space time
US 6399813 B1	USPAT	20020604	14	Process for the preparation of fluid bed vinyl acetate catalyst
US 6395676 B2	USPAT	20020528	15	Process for the preparation of fluid bed vinyl acetate catalyst
US 6388042 B1	USPAT	20020514	7	Dimethicone copolyol esters
US 6376706 B2	USPAT	20020423	5	Catalyst and use thereof in the production of vinyl acetate
US 6348623 B1	USPAT	20020219	7	Polymers of 3-butene esters, their preparation and use
US 6348622 B1	USPAT	20020219	15	Vitamin a related compounds and process for producing the same
US 6322838 B1	USPAT	20011127	10	Mint and/or fruit flavor compositions
US 6306943 B1	USPAT	20011023	9	Zero volatile organic solvent compositions
US 6303537 B1	USPAT	20011016	6	Vinyl acetate catalyst comprising metallic palladium and gold and prepared utilizing sonication
US 6278031 B1	USPAT	20010821		Catalyst and process for preparing 2-buten-1-ol compounds

US 6278016 B1	USPAT	20010821	Methods for conversion of isoprene to prenyl alcohol and related compounds
US 6274531 B1	560/261 USPAT	20010814	Vinyl acetate catalyst comprising metallic palladium and gold, and cupric acetate
US 6258978 B1	502/243 USPAT	20010710	Controlling product stream oxygen content in process for the production of vinyl acetate
US 6252106 B1	560/248 USPAT	20010626	Method for stabilizing a sex pheromone compound
US 6228800 B1	560/261 USPAT	20010508	Noble metal support
US 6225496 B1	USPAT	20010501	502/339 Process for the production of vinyl acetate utilizing a recycle stream comprising acetic acid and water
US 6215019 B1	USPAT	20010410	Synthesis of 5-decenyl acetate and other pheromone components
US 6191054 B1	560/234 USPAT	20010220	Method for forming film and method for fabricating semiconductor device
US 6180821 B1	438/780 USPAT	20010130	Integrated process for the production of vinyl acetate and/or acetic acid using a fluidized bed
US 6143921 A	USPAT	20001107	Method for producing vinyl acetate monomer from ethane or ethylene oxidation
US 6124270 A	560/245 USPAT	20000926	Use of a cationic amphiphathic compound as a transfection agent, vaccine additive or drug
US 6114573 A	514/44 USPAT	20000905	Catalyst, process for producing the catalyst and process for preparing vinyl acetate using the catalyst
US 6111130 A	USPAT	20000829	560/261 Process for the preparation of trifluoromethyl containing derivatives
US 6107515 A	560/111 USPAT	20000822	Process for preparing methacrylic or acrylic esters
US 6107514 A	560/261 USPAT	20000822	Vinyl acetate production using a catalyst comprising palladium and gold deposited on a copper containing carrier
US 6072079 A	USPAT	20000606	560/245 Continuous process for the production of diacetoxylbutene
560/261			

US 6048471 A	USPAT	20000411	Zero volatile organic compound compositions based upon organic solvents which are negligibly reactive with hydroxyl radical and do not contribute appreciably to the formation of ground based ozone
252/364			
US 6040474 A	USPAT	20000321	Integrated process for the production of vinyl acetate and/or acetic acid
560/243			
US 6034268 A	USPAT	20000307	8-Ocimeryl esters and fragrances and flavors containing the same
560/261			
US 5891921 A	USPAT	19990406	Quaternary ammonium carboxylate and borate compositions and preparation thereof
US 5886214 A	USPAT	19990323	Process for the production of chiral unsaturated alcohols in high optical purity
560/261			
US 5872277 A	USPAT	19990216	Methods for preparing prenyl alcohol
US 5859287 A	USPAT	19990112	Process for preparing vinyl acetate utilizing a catalyst comprising palladium, gold, and any of certain third metals
US 5821384 A	USPAT	19981013	560/241 Process for generating vinyl carboxylate esters
560/231			
US 5783726 A	USPAT	19980721	Process for the preparation of vinyl acetate catalyst
560/261			
US 5744637 A	USPAT	19980428	Carboxylic acid accelerated formation of diesters
560/238			
US 5731456 A	USPAT	19980324	Preparation of vinyl acetate
US 5728376 A	USPAT	19980317	560/238 Tetradecatrienyl and tetradecadienyl acetates and their use as sex attractants for tomato pests
US 5708167 A	USPAT	19980113	424/84 Method for the preparation of an N-vinyl compound
540/485			
US 5665667 A	USPAT	19970909	Process for the preparation of vinyl acetate catalyst
502/300			
US 5607670 A	USPAT	19970304	Sex attractant for the cranberry fruitworm
US 5589548 A	USPAT	19961231	424/84 Process for preparing difunctional telechelic linear non-crosslinked polyolefins
525/247			

US 5536693 A	USPAT	19960716		Process for the preparation of vinyl acetate catalyst
502/300				
US 5502243 A	USPAT	19960326		Hydrocarbonylation of dimethyl ether
US 5466652 A	USPAT	19951114		Process for the preparation of vinyl acetate catalyst
502/330				
US 5430179 A	USPAT	19950704		Homogeneous process for the ruthenium catalyzed addition of
carboxylic acids to alkynes	560/261			
US 5380901 A	USPAT	19950110		Multifunctional acrylates and the synthesis thereof
556/440				
US 5296220 A	USPAT	19940322		Cockroach attractant
US 5294733 A	USPAT	19940315		Organic compositions and their manufacture
US 5280048 A	USPAT	19940118		.beta., gamma.-dihydropolyprenyl alcohol derivatives and
pharmaceutical composition containing a polyprenyl compound				514/739
US 5254714 A	USPAT	19931019		Hydrogenation of aromatic-substituted olefins using
organoruthenium catalyst	560/8			
US 5243099 A	USPAT	19930907		Synthesis of alpha-substituted alkadienes
US 5236715 A	USPAT	19930817		Sex attractant for the mint root borer
US 5231221 A	USPAT	19930727		Process for the preparation of acylals
US 5227517 A	USPAT	19930713		Process for preparing ethylidene diacetate using iodide catalysts
560/238				
US 5202465 A	USPAT	19930413		Preparation of 2-methylenepropene-1,3-diol dicarboxylates
560/261				
US 5196571 A	USPAT	19930323	6	Preparation of unsaturated monoesters
US 5169981 A	USPAT	19921208	8	Synthesis of alpha-substituted alkadienes
US 5169867 A	USPAT	19921208	10	Hydroxylamine compounds
US 5166379 A	USPAT	19921124	10	Synthesis of compounds with biological activity, and methods of
use	554/224			
US 5155253 A	USPAT	19921013	19	Transvinylation process for the preparation of thermally labile
vinyl compounds and for vinyl compounds prepared from thermally labile acids				560/225
US 5149843 A	USPAT	19920922	16	Conjugated diene compounds
US 5118837 A	USPAT	19920602	10	Selective hydrogenation of olefins
				549/561
				560/261

US 5095134 A	USPAT	19920310	9	Thermochromic diacetylene ethers containing ester or urethane groups
US 5089659 A	USPAT	19920218	4	Preparation of E7/Z9-alkadien-1-ols and their derivatives protected at the hydroxyl group
US 5081083 A	USPAT	19920114	32	Method of treating intermetallic alloy hydrogenation/oxidation catalysts for improved impurity poisoning resistance, regeneration and increased activity
US 5077046 A	USPAT	19911231	28	Polyprenyl composition or compounds and process for the production thereof
US 5073572 A	USPAT	19911217	7	Bioactive metabolites from cribrochalina vasculum
US 5072029 A	USPAT	19911210	5	Catalyzed process for reacting carboxylic acids with vinyl ethers
US 5026903 A	USPAT	19910625	6	Production of ethylidene diacetate from dimethyl acetal
US 4994087 A	USPAT	19910219	9	Compounds containing substituted phenylamino and pyridyl groups and hair dyeing preparations using them
US 4992609 A	USPAT	19910212	11	Phosphonium salts and processes for production of and uses for the same
US 4978778 A	USPAT	19901218	12	Process for producing vinyl acetate
US 4970334 A	USPAT	19901113	9	Process for preparing esters of unsaturated alcohols
US 4965376 A	USPAT	19901023	4	3,9-dihydroxynonyne and its derivatives protected at the 9-OH function
US 4943397 A	USPAT	19900724	6	Metathesis of functional olefins
US 4943396 A	USPAT	19900724	5	Process for preparing linear alpha, omega difunctional molecules
US 4924026 A	USPAT	19900508	31	Triisobutylene alcohols and esters, uses thereof in perfumery and halogenated intermediates useful for preparing same
US 4912253 A	USPAT	19900327	5	Method for the preparation of an unsaturated alcohol or ester thereof

US 4910321 A	USPAT	19900320	15	Living catalysts, complexes and polymers therefrom
549/213				
US 4902824 A	USPAT	19900220	5	Dispersant for vinyl acetate unit fouling
US 4886904 A	USPAT	19891212		Polyphenyl composition or compounds and process for the
production thereof	560/249			
US 4843178 A	USPAT	19890627		Compositions possessing pheromone-like activity
568/469.9				
US 4843170 A	USPAT	19890627		Process for producing vinyl acetate
US 4837358 A	USPAT	19890606		Preparation of 9-alkenyl ester compounds
US 4827004 A	USPAT	19890502		Isoprene derivatives
US 4818442 A	USPAT	19890404		Disproportionation process
US 4812509 A	USPAT	19890314		Esters and polyesters from cyclopentadienylethanol and bis(2-
hydroxyethyl)dicyclopentadiene		524/484		
US 4806679 A	USPAT	19890221		Isomerization of diacyloxybutenes
US 4801738 A	USPAT	19890131		Preparation of .delta.-formylvalerates
US 4791222 A	USPAT	19881213		Process for preparing dihydromyrcenol and dihydromyrcenyl
acetate	560/237			
US 4789750 A	USPAT	19881206		2-(trimethyl-trideceny)-tetramethylchroman intermediates for
vitamin E	549/407			
US 4780542 A	USPAT	19881025		Process for the synthesis of esters and amides of carboxylic acids
548/261				
US 4740627 A	USPAT	19880426		Synthesis of E,Z-11-tetradecen-1-al
US 4734524 A	USPAT	19880329		Synthetic pheromone 8-methyl-2-decanol propanoate
560/265				
US 4691053 A	USPAT	19870901		Process for producing organic compounds by utilizing oxygenic
complexes	562/531			
US 4665221 A	USPAT	19870512		Preparation of terpenoid formates
US 4658071 A	USPAT	19870414		Preparation of olefinically unsaturated compounds in particular
alkenols	568/903			
US 4658053 A	USPAT	19870414	3	Production of esters
				560/234

US 4650896 A	USPAT	19870317	5	Preparation of 2-alkyl-4,4-diacyloxybut-2-enals
560/112				
US 4629586 A	USPAT	19861216	23	Hexynyl alkanates and organoleptic uses thereof
510/107				
US 4618704 A	USPAT	19861021	5	Acyloxy-2-butenes and their preparation
US 4615838 A	USPAT	19861007	6	Unsaturated compounds and their preparation
554/224				
US 4613457 A	USPAT	19860923	3	2-methyl pentanoic acid esters and perfume compositions
containing them	512/21			
US 4599469 A	USPAT	19860708	8	Hydrogenation process
US 4571408 A	USPAT	19860218	8	alpha., beta.-Dihydropolyprenyl derivatives for treating hepatitis
514/546				570/193
US 4560792 A	USPAT	19851224	10	Disproportionation of functional olefins
US 4560776 A	USPAT	19851224	45	Prins reaction products of diisoamylene, derivatives thereof,
organoleptic uses thereof and processes for preparing same				549/356
US 4539209 A	USPAT	19850903	23	Food flavoring use of hexynyl alkanates
US 4536188 A	USPAT	19850820	3	Alcohol compositions having luminous flames
US 4529132 A	USPAT	19850716	4	Process for preparing free-flowing ethylene homopolymers or
copolymer waxes	241/1			
US 4525298 A	USPAT	19850625	20	Aliphatic alcohols and esters and their use as perfuming
ingredients				
US 4521342 A	USPAT	19850604	4	Preparation of 2-alkyl-4,4-diacyloxybut-2-enals
554/163				
US 4520213 A	USPAT	19850528	6	Method for solvent recovery in solvent separation of ethanol from
water				
US 4517377 A	USPAT	19850514	6	Process for producing vinyl acetate
US 4510319 A	USPAT	19850409	12	Functionalization of terminal trisubstituted alkenes and derivatives
thereof				
US 4501918 A	USPAT	19850226	36	Substituted methyl isopropyl oxocyclohexane derivatives,
organoleptic uses thereof and process for preparing same				560/231
US 4501687 A	USPAT	19850226	7	Cyclopentanols
				512/8

US 4499297 A	USPAT	19850212	4	Process for the preparation of alkylated cyclopentenones
560/231				
US 4495359 A	USPAT	19850122	43	Prins reaction products of diisoamylene, derivatives thereof, 549/356
organoleptic uses thereof and processes for preparing same				
US 4487959 A	USPAT	19841211	5	Vinyl acetate purification process 560/248
US 4481217 A	USPAT	19841106	8	.alpha.,.beta.-Dihydropolyprenyl derivatives useful in treating
hepatitis				
514/549				
US 4469703 A	USPAT	19840904	10	Nitroalkanol derivatives and plant protecting agents containing the
same				
514/548				
US 4465853 A	USPAT	19840814		Method for isomerizing diacetoxabutenes 560/262
US 4461910 A	USPAT	19840724		Process for the co-production of dicarboxylates and acids
560/263				
US 4450289 A	USPAT	19840522		Butenyl acetate production 560/241
US 4450288 A	USPAT	19840522		Butenyl acetate production 560/241
US 4450287 A	USPAT	19840522		Butenyl acetate production 560/241
US 4450286 A	USPAT	19840522		Butenyl acetate production 560/241
US 4440961 A	USPAT	19840403		Branched chain olefinic alcohols, thiols, esters and ethers,
organoleptic uses thereof, processes for preparing same and intermediates therefor				568/840
US 4438286 A	USPAT	19840320		Substituted esters and alcohols 568/840
US 4431838 A	USPAT	19840214		Extractive distillation of alcohol-ester mixtures and
transesterification				
560/234				
US 4429151 A	USPAT	19840131		Prins reaction products of diisoamylene, derivatives thereof, 560/261
organoleptic uses thereof and processes for preparing same				
US 4425265 A	USPAT	19840110		Branched chain alkenyl methyl carbonates, uses thereof in
augmenting or enhancing the aroma of perfume compositions, colognes and perfumed articles and formate intermediates useful in				
preparing same				
512/26				
US 4415499 A	USPAT	19831115		Process for the manufacture of palladium(II) catalyst and for the
manufacture of alkenyl esters of carboxylic acids employing said catalyst				554/153
US 4413639 A	USPAT	19831108		Use of prins and derivatives thereof in augmenting or enhancing
the aroma or taste of a smoking tobacco composition or smoking tobacco article component				131/276

US 4410719 A	USPAT	19831018	Preparation of 2-alkyl-4,4-diacyloxybut-2-enals
560/112			
US 4410718 A	USPAT	19831018	Process for forming esters (I)
US 4406810 A	USPAT	19830927	Use of Prins reaction products of diisobutylene in augmenting or
enhancing the aroma of detergents		510/101	
US 4399301 A	USPAT	19830816	Methylenically-substituted undecadienes
US 4395370 A	USPAT	19830726	Branched chain alkenyl methyl carbonates, uses thereof in
augmenting or enhancing the aroma of perfume compositions, colognes and perfumed articles and formate intermediates useful in			
preparing same	558/260		
US 4394285 A	USPAT	19830719	Prins reaction products of diisoamylenes, derivatives thereof,
organoleptic uses thereof and processes for preparing same		510/101	
US 4387047 A	USPAT	19830607	Esters of 1,3-dimethyl-but-3-en-1-yl, their utilization as perfuming
and flavoring ingredients and compositions containing same		426/534	
US 4381242 A	USPAT	19830426	Organoleptic use of Prins reaction products of diisoamylenes,
derivatives thereof, organoleptic uses thereof and processes for preparing same		510/101	
US 4380636 A	USPAT	19830419	Process for forming esters (II)
US 4379940 A	USPAT	19830412	Vinyl acetate purification process
US 4375005 A	USPAT	19830222	Branched chain olefinic alcohols, thiols, esters and ethers,
organoleptic uses thereof, processes for preparing same and intermediates therefor		568/878	
US 4374263 A	USPAT	19830215	Process for the production of esters in the presence of a
heterogeneous esterification catalyst		560/204	
US 4370497 A	USPAT	19830125	Oxidation process using tellurium oxide catalysts
US 4359412 A	USPAT	19821116	Organoleptic use of Prins reaction products of diisoamylenes
derivatives	512/11		
US 4349415 A	USPAT	19820914	Process for separating organic liquid solutes from their solvent
mixtures	203/14		
US 4347388 A	USPAT	19820831	3,6-Dimethyl-3-hydroxy-oct-1-yne and -oct-1-enes, derivatives of
these, and their use as scents, and in the preparation of 3,6-dimethyl-3-hydroxy-octane		568/840	
US 4338170 A	USPAT	19820706	Isomerization of .beta.-.gamma.-unsaturated alcohol or its ester
204/157.87			

US 4331655 A	USPAT	19820525	Cosmetic compositions and processes containing ether and acyl
derivatives of 3,7,11-trimethyl-2,6,10-dodecatriene-1-ol		424/59	
US 4317905 A	USPAT	19820302	Preparation of compounds containing two conjugated double
bonds cis-cis and cis-trans		549/415	
US 4314071 A	USPAT	19820202	Method of preparing monoesters
US 4310709 A	USPAT	19820112	560/127
corresponding but-3-en-1-ol compounds			Manufacture of but-2-en-1-ol compounds by isomerizing the
US 4269780 A	USPAT	19810526	Olefin disproportionation
US 4267363 A	USPAT	19810512	554/163
560/183			Intermediates for a sex pheromone for yellow scale
US 4260548 A	USPAT	19810407	Process for preparing polyethylene waxes
US 4243660 A	USPAT	19810106	549/252
for preparing its active agents			Composite insect attractant for male cabbage moths and a process
US 4236024 A	USPAT	19801125	Process for producing diacetoxybutene
US 4225728 A	USPAT	19800930	560/244
amounts of vinyl acetate and phenol		560/261	Catalytic process for the conversion of ethyl benzene to equimolar
US 4223012 A	USPAT	19800916	Method for control of San Jose scale
US 4192953 A	USPAT	19800311	Polyprenyl derivatives
US 4160865 A	USPAT	19790710	Asymmetric synthesis
US 4158096 A	USPAT	19790612	560/22
US 4126585 A	USPAT	19781121	Intermediates for insect pheromone
512/26			560/262
US 4125735 A	USPAT	19781114	2-Methyl-2-ethyl-hexanoate ester perfume compositions
US 4118406 A	USPAT	19781003	Synthesis of esters of acetylenic alcohols
US 4116955 A	USPAT	19780926	560/254
method for its use		534/838	Process for preparing cis-olefins
US 4107333 A	USPAT	19780815	554/125
514/785			Inclusion complex compound, process for its production, and
US 4104202 A	USPAT	19780801	Skin care with a cosmetic composition containing oleyl acetate
512/25			Perfume compositions and process for preparing same
US 4068082 A	USPAT	19780110	Process for preparing esters
			560/90

US 4066710 A	USPAT	19780103	4	Unsaturated alcohol	568/875	
US 4061667 A	USPAT	19771206	3	Cis-2-methyl-oct-5-en-2-yl acetate		560/261
US 4059641 A	USPAT	19771122	20	Polyprenyl derivatives	568/857	
US 4055603 A	USPAT	19771025	37	Alkynyl terminating groups in biogenetic-like cyclizations to		
steroids						
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